

Prof Colin Windsor, BA, DPhil, FInstP, FBInstNDT, FRS

Tokamak Energy Achievements: August 2013-April 2023



Home-page website: <https://colin-windsor.github.io/HomePage/index.htm>

[Who's Who entry \(1995\)](#)

[Wikipedia entry \(2012\)](#)

A [Personal Profile](#) (1995) was written for the NDT Journal INSIGHT by Lucinda Kowel

My [Science Story](#): A full account of my life in science

1998: [Progress in magnetic fusion research](#) (with Tom Todd) *Contemporary Physics* **39**, 255-283

2015: Instigator of "Faster fusion" summer exhibition at the Royal Society

2019: Lead organiser and guest editor of *Phil Trans A* of international conference on faster fusion

Qualifications:

1995 [Fellow of the Royal Society](#)

1994 Fellow of the British Institute of Non-Destructive Testing

1990 [Honorary Professor of Physics](#) at Birmingham University

1986 Awarded the [IoP Duddell](#) medal for developments in instrumentation

1975 Fellow of the Institute of Physics

1963 DPhil, Magnetic Properties of Coupled Systems, Clarendon, Oxford

1960 BA Hons, Class I Physics, Oxford



Ed Vaisey MP firing a shot

Refereed journal [publications](#): 207: [Google Scholar citations](#): 6566

Lead author of refereed published papers on fusion

2022: [Activation and transmutation of tungsten boride shields in a spherical tokamak](#),

Nucl. Fusion **62** 036009

2021: [Tungsten boride shields in a spherical tokamak fusion power plant](#): *Nucl. Fusion* **61** 086018

2019: [Can the development of fusion energy be accelerated?](#) *Phil. Trans. A* **2141**

2018: [Design of cemented tungsten carbide and boride-containing shields for a fusion power plant](#):

Nucl. Fusion **58** 076014, 2018

2017: [Neutron and gamma flux distributions and their implications for radiation damage in the shielded superconducting core of a fusion power plant](#) *Nucl. Fusion* **57** 116032

2017: [Spherical tokamaks for compact fusion energy](#) *Nuclear Future*, Volume **13**, Issue 3

2016: [Modelling the power deposition into a spherical tokamak fusion power plant](#), *Nucl. Fusion* **57** 036001

2016: [Fusion Energy: Can smaller be better?](#) *Nuclear Future*, Volume **12**, Issue 3.

2015: [Heat deposition into the superconducting central column of a spherical tokamak fusion plant](#):

Nucl. Fusion **55** 023014

2008: [Prediction of the Charpy transition temperature in highly irradiated ferritic steels](#)

Modelling Simul. Mater. Sci. Eng. **16** 075008

2008: [Prediction of yield stress in highly irradiated ferritic steels](#)

Modelling Simul. Mater. Sci. Eng. **16** 025005

2005: [A cross-tokamak neural network disruption predictor for the JET and ASDEX Upgrade tokamaks](#)

Nucl. Fusion **45** 337

1998: Validated neutron data for physics studies and their use in tomographic reconstructions

Unpublished UKAEA work-package report:

F/PL/WPA14.2d/CGW1 [Jet record shot 42976 Video](#)

1995: [On-line control of the COMPASS-D tokamak using a neural network](#)

. *Energy*, **34**, 85-91

